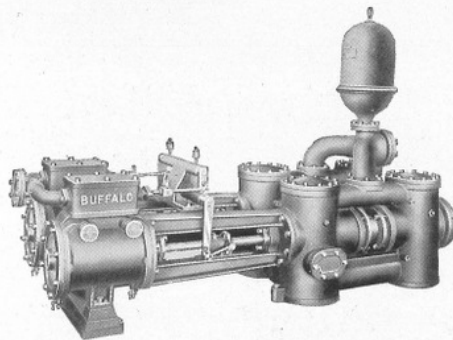


BUFFALO

Duplex Outside Packed Plunger
Steam Pumps



Bulletin No. 912

Buffalo Steam Pump Co.
Buffalo, N. Y.

New York
Boston
Philadelphia
Pittsburgh

Cleveland
Detroit
Chicago
St. Louis
Los Angeles

New Orleans
Atlanta
Minneapolis
Denver

Canadian Blower & Forge Co., Ltd.
Kitchener, Ont., Canada

Toronto

Montreal

Calgary

Vancouver

St. John.

BUFFALO DUPLEX OUTSIDE CENTER PACKED PUMPS

Outside Center Packed: 200 lbs. Pressure.

Use: General service, boiler feeding, elevator and mine service up to 200 lbs. pressure or when water contains slight precipitations.

STANDARD FITTINGS

Steam Cylinders: Cast iron integral with cradle on sizes 10x6x10 and smaller, separate from cradle on larger sizes, separate from water end on all sizes. 150 lbs. working pressure.

Steam Valves: "D" slide valves.

Valve Gear: Duplex type, cast steel valve rod heads, rocker arms, links and levers.

Steam Pistons: Cast iron, snap rings.

Piston Rods: Steel.

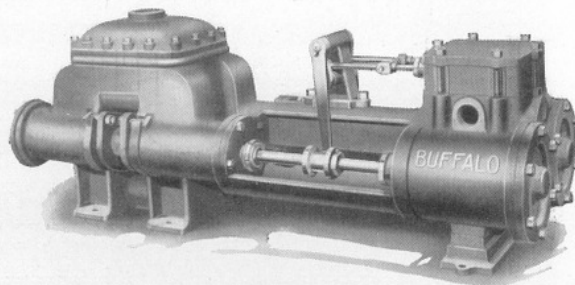


Fig. 742

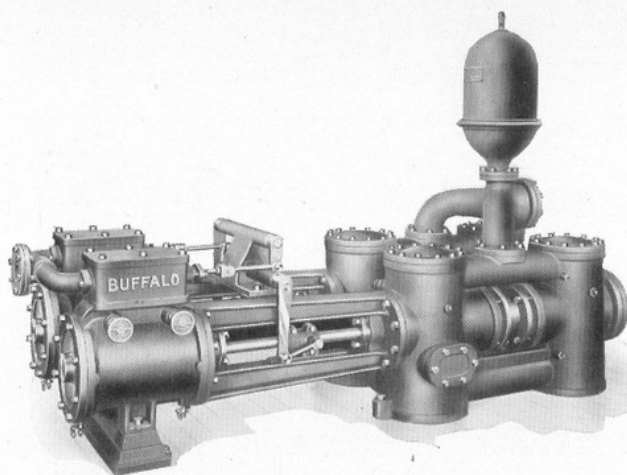


Fig. 743

Stuffing Boxes and Glands: Piston rod boxes screwed type on 10 inch stroke and smaller pumps. Stud type on larger pumps.

Water End: Cast iron. Suction and discharge valves above plungers on pump Fig. 742. Suction valves below and discharge valves above plungers on pump Fig. 743.

Water Valves: Bronze disc type (rubber if ordered) bronze stems, brass springs.

Valve Seats: Bronze, screwed into decks.

Water Plungers: Cast iron, truly cylindrical.

Wrenches: All necessary special wrenches.

EXTRAS

Steam cylinder lagging, pressure or speed governor or regulator, sight feed or mechanically operated lubricator, discharge air chamber on 10 inch stroke and smaller pumps and base plate.

Code Word with Steel Plunger Rods and Iron Plungers	Figure Number	Diameter of Steam Cylinders, Inches	Diameter of Water Cylinders, Inches	Stroke, Inches	Plunger Speed, Feet per Minute	Capacity, Gallons per Minute	Horse Power Boiler at 35 lbs. Evaporation that Pump will Feed at Slow Piston Speed	Diameter of Pipes, Inches				Approximate Floor Space, Inches
								Steam	Exhaust	Suction	Discharge	
DKABS	742	4 1/2	2 3/4	4	50	30	150	1 1/2	3/4	2	1 1/2	14x 48
DKAGH	742	5 1/4	3 1/2	6	65	65	275	3/4	1 1/4	2 1/2	2	16x 63
DKAHI	742	6	4	6	65	78	350	1	1 1/2	3	2	18x 64
DKAJD	742	7 1/2	4 1/2	10	85	140	650	1 1/2	2	4	3	22x 80
DKALM	742	9	5	10	173	173	800	2	2 1/2	5	4	25x 86
DKAMG	742	10	5	10	225	173	800	2	2 1/2	5	4	25x 86
DKAMY	742	10	6	10	225	248	1200	2	2 1/2	5	4	25x 86
DKANT	743	10	6	12	100	291	1400	2	2 1/2	6	5	31x105
DKAPF	743	10	7	12	100	400	1900	2	2 1/2	6	5	31x105
DKARP	743	12	7	12	100	400	1900	2 1/2	3	6	5	33x105
DKASK	743	12	8 1/2	12	100	588	2800	2 1/2	3	8	6	40x108
DKAVZ	743	14	8 1/2	12	100	588	2800	3	4	8	6	42x108
DKBAJ	743	14	9	12	100	660	3100	3	4	10	8	48x118
DKBEK	743	14	10	12	100	815	4000	3	4	10	8	48x118
DKBGA	743	16	10	12	100	815	4000	3	4	10	8	48x118
DKBIL	743	18	10	12	100	815	4000	3	4	10	8	48x118
DKBKE	743	18	12	18	110	1290	7000	3	4	12	10	54x134
DKBNI	743	20	12	18	110	1290	7000	4	5	12	10	54x134
DKBOM	743	20	14	18	110	1760	9500	4	5	12	10	54x134

Add Code Word JCKAX for Bronze Plunger Rods.
Add Code Word JCKDW for Brass Water Plungers.
Add Code Word JCKEV for Brass Lined Stuffing Boxes and Glands in Water End.

BUFFALO COMPOUND DUPLEX OUTSIDE CENTER PACKED PUMPS

Outside Center Packed: 200 lbs. Pressure.

Use: General service, boiler feeding, elevator and mine service up to 200 lbs. pressure or when water contains slight precipitations.

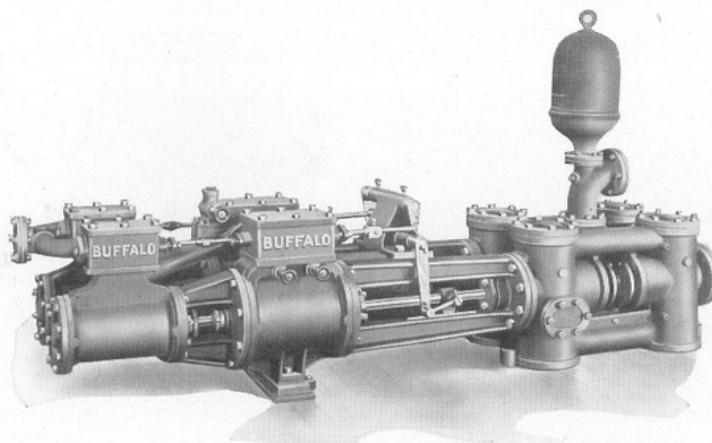


Fig. 746

STANDARD FITTINGS

Steam Cylinders: Compound arrangement, cast iron, separate from cradle on all sizes. 150 lbs. working pressure.

Steam Valves: "D" slide valves.

Valve Gear: Duplex type, cast steel valve rod heads, rocker arms, links and levers.

Steam Pistons: Cast iron, snap rings.

Piston Rods: Steel.

Stuffing Boxes and Glands: Stud type.

Water End: Cast iron. Suction valves below and discharge valves above plungers.

Water Valves: Bronze disc type (rubber if ordered) bronze stems, brass springs.

Valve Seats: Bronze, screwed into decks.

Water Plungers: Cast iron, truly cylindrical.

Wrenches: All necessary special wrenches.

EXTRAS

Steam cylinder lagging, pressure or speed governor or regulator, sight feed or mechanically operated lubricator and base plate.

Code Word with Steel Plunger Rods and Iron Plungers	Figure Number	Diameter of High Pressure Steam Cylinders, Inches	Diameter of Low Pressure Steam Cylinders, Inches	Diameter of Water Cylinders, Inches	Stroke, Inches	Plunger Speed, Feet per Minute	Capacity, Gallons per Minute	Diameter of Pipes, Inches				Approximate Floor Space, Inches
								Steam	Exhaust	Suction	Discharge	
DKDIN	746	8	12	6	12	100	391	1½	3	6	5	38x140
DKDKO	746	8	12	7	12	100	400	1½	3	6	5	38x140
DKDNU	746	9	14	7	12	100	400	2	4	6	5	40x140
DKDOP	746	8	12	8½	12	100	588	1½	3	8	6	44x144
DKDSY	746	9	14	8½	12	100	588	2	4	8	6	44x144
DKDUR	746	10	16	8½	12	100	588	2	4	8	6	44x144
DKDXA	746	12	18	8½	12	100	588	2½	4	8	6	48x144
DKDYS	746	9	14	10	12	100	815	2	4	10	8	48x152
DKEBT	746	10	16	10	12	100	815	2	4	10	8	48x152
DKEDS	746	12	18	10	12	100	815	2½	4	10	8	48x152
DKEGN	746	14	20	10	12	100	815	2½	5	10	8	48x152
DKEHK	746	12	18	12	18	110	1290	2½	4	12	10	54x172
DKEJL	746	14	20	12	18	110	1290	2½	5	12	10	54x172
DKELD	746	14	20	14	18	110	1760	2½	5	12	10	54x172

Add Code Word JCKAX for Bronze Plunger Rods.

Add Code Word JCKDW for Brass Water Plungers.

Add Code Word JCKEV for Brass Lined Stuffing Boxes and Glands in Water End.

BUFFALO DUPLEX OUTSIDE END PACKED PUMPS

Outside End Packed: 300 lbs. Pressure

Use: General service, boiler feeding, elevator and mine service up to 300 lbs. pressure. Especially adapted for handling gritty liquids.

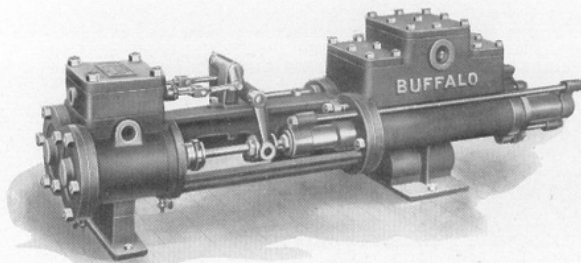


Fig. 749

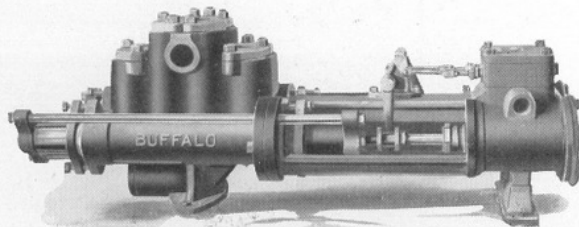


Fig. 750

STANDARD FITTINGS

Steam Cylinders: Cast iron, integral with cradle on $7\frac{1}{2} \times 4\frac{1}{2} \times 10$ and smaller; separate from cradle on larger sizes; separate from water end on all sizes. 150 lbs. working pressure.

Steam Valves: "D" slide valves.

Valve Gear: Duplex type, cast steel valve rod heads, rocker arms, links and levers.

Steam Pistons: Cast iron, snap rings.

Plunger Rods: Steel.

Stuffing Boxes and Glands: Piston rod boxes screwed type on $7\frac{1}{2} \times 4\frac{1}{2} \times 10$ and smaller pumps. Stud type on larger pumps.

Water End: Cast iron, suction and discharge valves above plungers.

Water Valves: Bronze wing type for heavy pressure.

Valve Seats: Bronze, forced into decks on taper.

Water Plungers: Cast iron, truly cylindrical.

Wrenches: All necessary special wrenches.

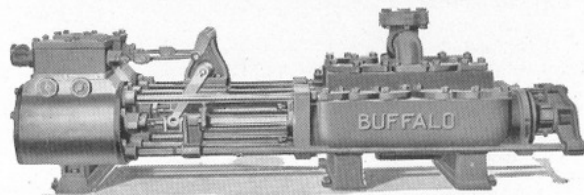


Fig. 751

EXTRAS

Steam cylinder lagging, pressure or speed governor or regulator, sight feed or mechanically operated lubricator and base plate.

Code Word with Steel Plunger Rods and Iron Plungers	Figure Number	Diameter of Steam Cylinders, Inches	Diameter of Water Cylinders, Inches	Stroke, Inches	Plunger Speed, Feet per Minute	Capacity Gallons per Minute	Horse Power Boiler at 35 lbs. Evaporation that Pump will Feed at Slow Piston Speed	Diameter of Pipes, Inches				Approximate Floor Space, Inches
								Steam	Exhaust	Suction	Discharge	
DKFUS	749	4 $\frac{1}{2}$	1 $\frac{1}{2}$	4	50	9	40	1 $\frac{1}{2}$	3 $\frac{3}{4}$	1 $\frac{1}{2}$	1	14x 48
DKFXE	749	4 $\frac{1}{2}$	1 $\frac{1}{2}$	4	50	16	80	1 $\frac{1}{2}$	3 $\frac{3}{4}$	1 $\frac{1}{2}$	1	14x 48
DKFYT	749	5 $\frac{1}{4}$	3	6	65	47	200	3 $\frac{3}{4}$	11 $\frac{1}{4}$	3 $\frac{1}{2}$	2	18x 72
DKGAN	749	6	3	6	65	47	200	1	1 $\frac{1}{2}$	3	2	18x 72
DKGCO	749	6	3 $\frac{1}{2}$	6	65	65	275	1	1 $\frac{1}{2}$	3	2	18x 72
DKGEP	749	6	4	6	65	78	350	1	1 $\frac{1}{2}$	3	2	18x 72
DKGIR	750	7 $\frac{1}{2}$	4	8	75	98	450	1 $\frac{1}{2}$	2	4	3	24x 83
DKGYK	750	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	75	123	550	1 $\frac{1}{2}$	2	4	3	24x 83
DKGOS	751	7 $\frac{1}{2}$	4 $\frac{1}{2}$	10	85	140	650	1 $\frac{1}{2}$	2	4	3	24x 87
DKGPA	751	9	4 $\frac{1}{2}$	10	85	140	650	2	2 $\frac{1}{2}$	5	4	27x100
DKGTE	751	10	4 $\frac{1}{2}$	10	85	140	650	2	2 $\frac{1}{2}$	5	4	27x100
DKGUT	751	10	5	10	85	173	800	2	2 $\frac{1}{2}$	5	4	27x100
DKGXI	751	10	6	10	85	248	1200	2	2 $\frac{1}{2}$	5	4	27x106
DKGYV	751	12	6	12	100	291	1400	2 $\frac{1}{2}$	3	6	5	41x126
DKHAP	751	12	7	12	100	400	1900	2 $\frac{1}{2}$	3	6	5	41x126
DKHCU	751	12	7 $\frac{1}{2}$	12	100	457	2100	2 $\frac{1}{2}$	3	6	5	41x126

Add Code Word JCKDW for Brass Water Plungers.

Add Code Word JCKEZ for Brass Lined Glands and Throats in Water End.

BUFFALO DUPLEX VALVE POT PUMPS

Outside End Packed: 300 lbs. Pressure

Use: General service, boiler feeding, elevator and mine service up to 300 lbs. pressure. Especially adapted for handling gritty liquids.

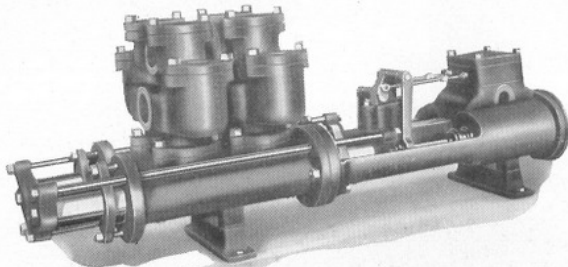


Fig. 754

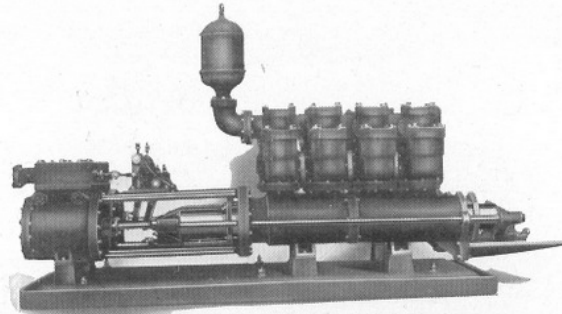


Fig. 755

Base Plate Furnished at Extra Price Only

STANDARD FITTINGS

Steam Cylinders: Cast iron, integral with cradle on $7\frac{1}{2} \times 4\frac{1}{2} \times 10$ and smaller; separate from cradle on larger sizes; separate from water end on all sizes. 150 lbs. working pressure.

Steam Valves: "D" slide valves.

Valve Gear: Duplex type, cast steel valve rod heads, rocker arms, links and levers.

Steam Pistons: Cast iron, snap rings.

Piston Rods: Steel.

Stuffing Boxes and Glands: Piston rod boxes screwed type on $7\frac{1}{2} \times 4\frac{1}{2} \times 10$ and smaller pumps. Stud type on larger pumps.

Water End: Cast iron, valve pot type, suction and discharge valve above plungers.

Water Valves: Bronze wing type for heavy pressure.

Valve Seats: Bronze, forced into decks on taper.

Water Plungers: Cast iron, truly cylindrical.

Wrenches: All necessary special wrenches.

EXTRAS

Steam cylinder lagging, pressure or speed governor or regulator, sight feed or mechanically operated lubricator and base plate.

Code Word with Steel Plunger Rods and Iron Plungers	Figure Number	Diameter of Steam Cylinders, Inches	Diameter of Water Cylinders, Inches	Stroke, Inches	Plunger Speed, Feet per Minute	Capacity, Gallons per Minute	Horse Power Boiler at 35 lbs. Evaporation that Pump will Feed at Slow Piston Speed	Diameter of Pipes, Inches				Approximate Floor Space, Inches
								Steam	Exhaust	Suction	Discharge	
DQBKX	754	$5\frac{1}{4}$	$3\frac{1}{2}$	6	65	65	275	$\frac{3}{4}$	$1\frac{1}{4}$	3	2	24x 62
DQBYD	754	6	$3\frac{1}{2}$	6	65	65	275	1	$1\frac{1}{2}$	3	2	24x 62
DQBYN	754	6	4	6	65	78	350	1	$1\frac{1}{2}$	3	2	24x 62
DQCAJ	754	$7\frac{1}{2}$	4	8	75	98	450	$1\frac{1}{2}$	2	4	3	30x 86
DQCBY	754	$7\frac{1}{2}$	$4\frac{1}{2}$	8	75	123	550	$1\frac{1}{2}$	2	4	3	30x 86
DQCEK	754	$7\frac{1}{2}$	4	10	85	111	500	$1\frac{1}{2}$	2	4	3	30x 86
DQCGA	754	$7\frac{1}{2}$	$4\frac{1}{2}$	10	85	140	650	$1\frac{1}{2}$	2	4	3	30x 86
DQCIL	754	9	$4\frac{1}{2}$	10	85	140	650	2	$2\frac{1}{2}$	4	3	30x 88
DQCKE	754	10	$4\frac{1}{2}$	10	85	140	650	2	$2\frac{1}{2}$	4	3	30x 88
DQCNI	754	9	5	10	85	173	800	2	$2\frac{1}{2}$	5	4	36x 90
DQCOB	754	10	5	10	85	173	800	$2\frac{1}{2}$	$2\frac{1}{2}$	5	4	36x 90
DQCOM	754	10	6	10	85	248	1200	2	$2\frac{1}{2}$	5	4	36x 90
DQCSO	754	12	5	12	100	203	950	$2\frac{1}{2}$	3	5	4	36x 90
DQCUN	754	12	6	12	100	291	1400	$2\frac{1}{2}$	3	5	4	36x 90
DQCWU	754	14	$6\frac{1}{2}$	12	100	343	1650	3	4	6	5	36x 90
DQCYP	754	14	$7\frac{1}{2}$	12	100	457	2100	3	4	6	5	40x100
DQCXA	754	16	$7\frac{1}{2}$	12	100	457	2100	3	4	6	5	40x100
DQDAK	755	14	$7\frac{1}{2}$	12	100	457	2100	3	4	7	6	50x160
DQDBN	755	16	$7\frac{1}{2}$	12	100	457	2100	3	4	7	6	60x160
DQDCA	755	16	8	12	100	520	2500	3	4	7	6	60x160
DQDEL	755	16	$8\frac{1}{2}$	12	100	588	2800	3	4	7	6	60x166
DQDGE	755	18	9	12	100	660	3100	3	4	8	6	60x166
DQDIM	755	20	9	12	100	660	3100	4	5	8	6	60x170
DQDKI	755	18	10	12	100	815	4000	3	4	8	6	60x166
DQDNO	755	20	10	12	100	815	4000	4	5	8	6	60x170
DQRAB	755	14	$7\frac{1}{2}$	18	110	505	2400	3	4	7	6	50x160
DQRBN	755	16	8	18	110	575	2700	3	4	7	6	60x160
DQREX	755	16	$8\frac{1}{2}$	18	110	645	3000	3	4	7	6	60x166
DQRIM	755	18	9	18	110	725	3500	3	4	8	6	60x166
DQROY	755	20	9	18	110	725	3500	4	5	8	6	60x170
DQRTU	755	18	10	18	110	900	4400	3	4	8	6	60x166
DQRXA	755	20	10	18	110	900	4400	4	5	8	6	60x170

Add Code Word JCKDW for Brass Water Plungers.

Add Code Word JCKEZ for Brass Lined Glands and Throats in Water End.

HIGH PRESSURE PUMPS

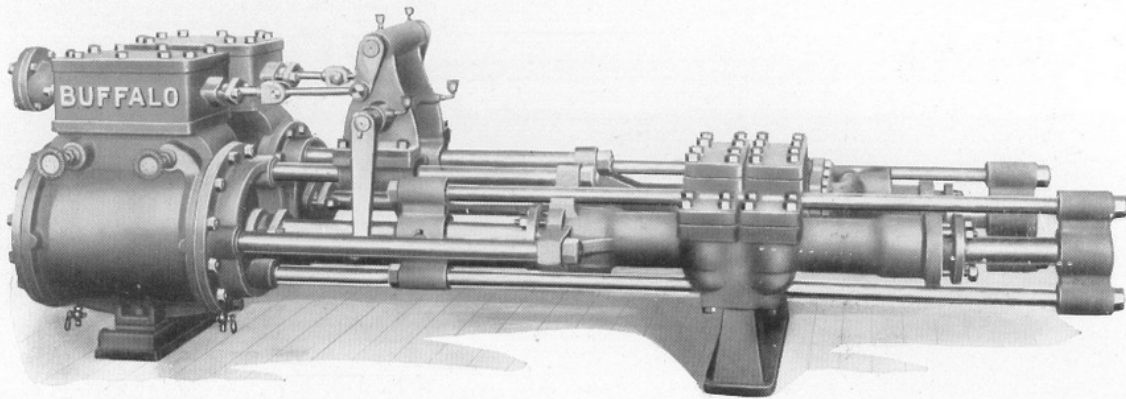


Fig. 777

Hydraulic Pressure Pump, Cast or Forged Steel End
For Pressures up to 2500 lbs.

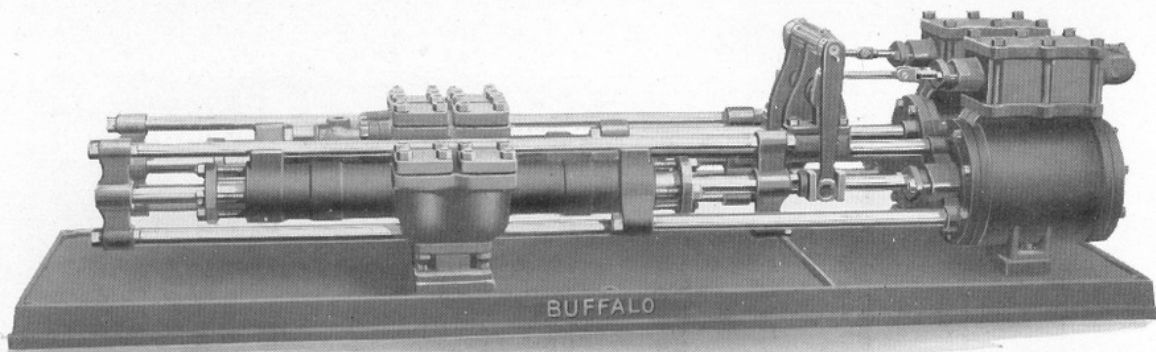


Fig. 783

Oil Mill Pump, Cast Steel End
For Pressures up to 1800 lbs.

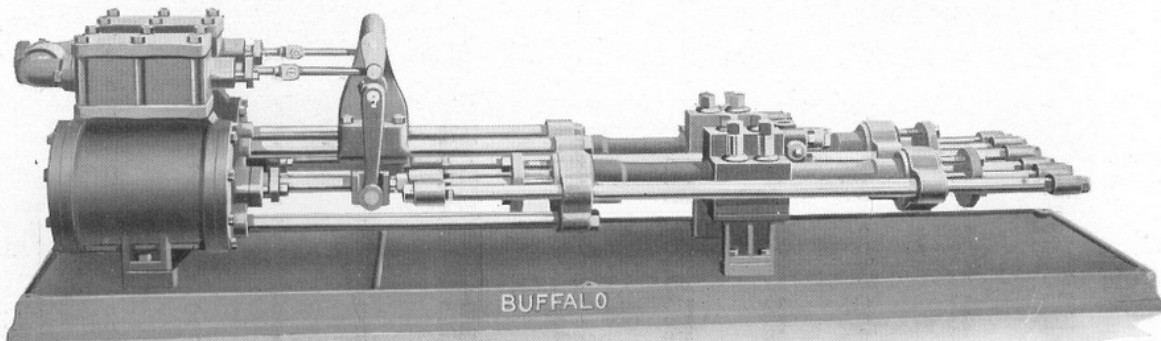
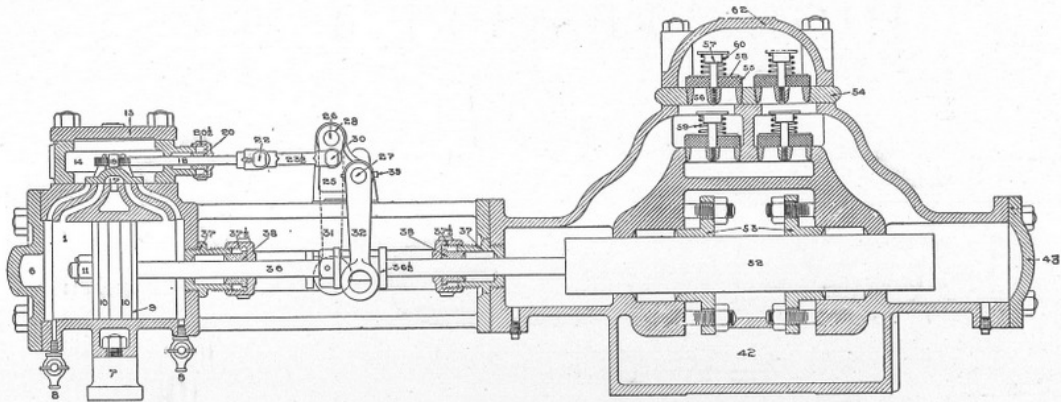
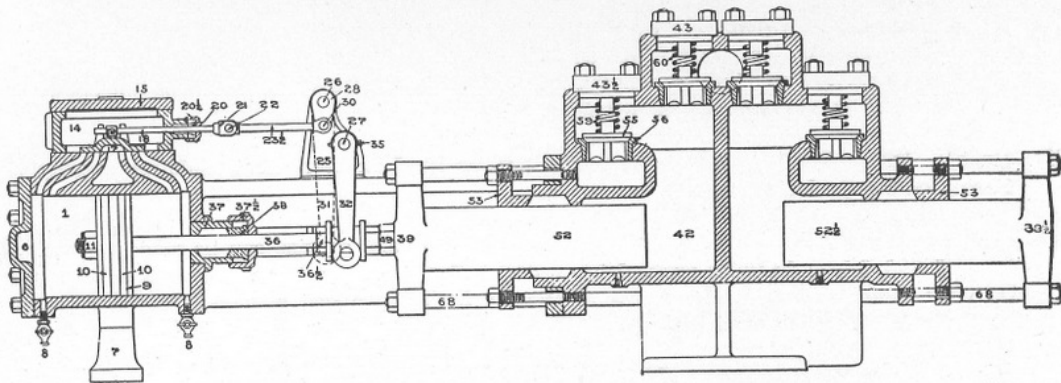


Fig. 784

Oil Mill Pump, Forged Steel End
For Pressures up to 6500 lbs.

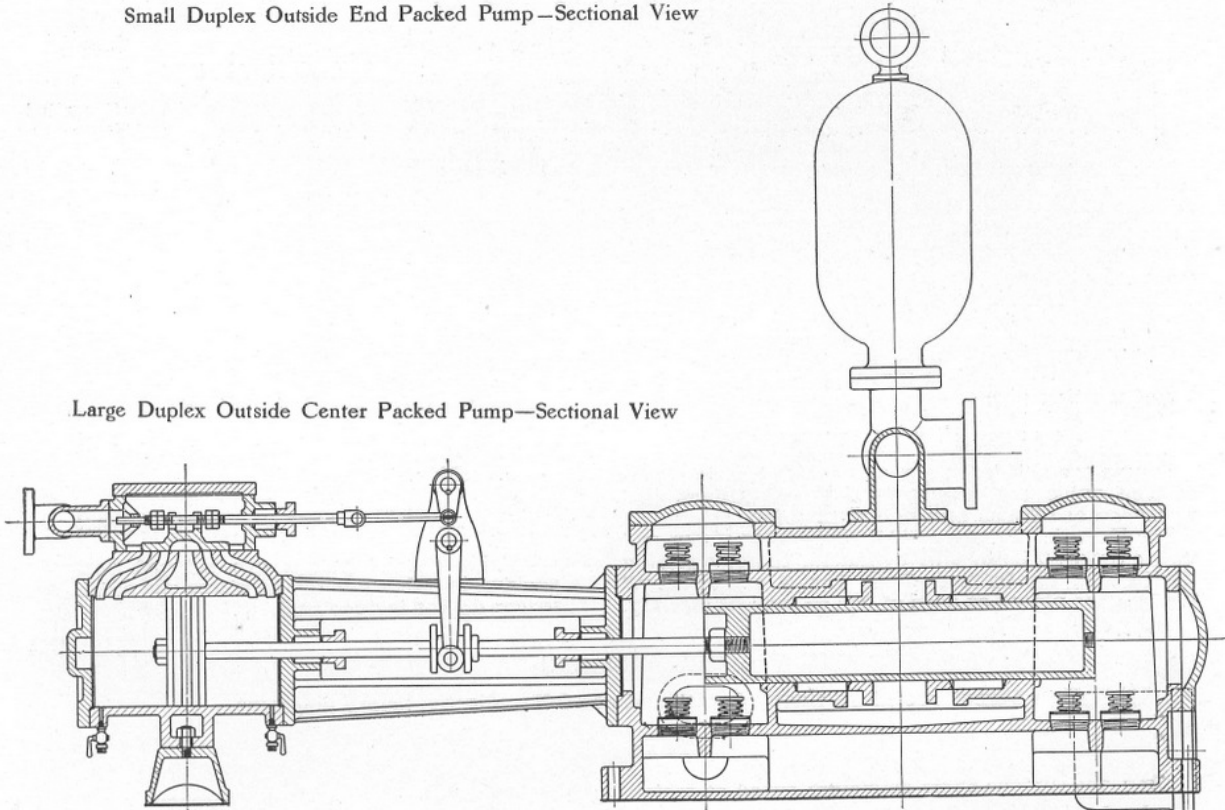


Small Duplex Outside Center Packed Pump—Sectional View



Small Duplex Outside End Packed Pump—Sectional View

Large Duplex Outside Center Packed Pump—Sectional View



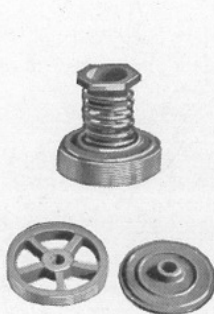


Fig. 543

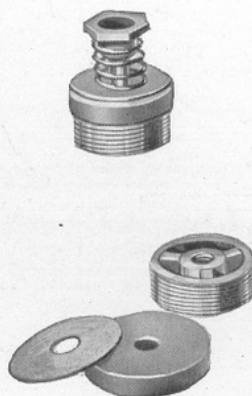


Fig. 540

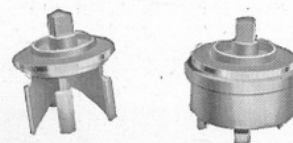


Fig. 544

Fig. 543: Buffalo Brass Disk Valve. All parts are of brass, or for special service can be made of iron. The brass valve plate is accurately surfaced to fit water tight against the seat and "cupped" to have ample strength against the water pressure. This is standard equipment for outside center packed pumps except where otherwise specified.

Fig. 540: Buffalo Rubber Valve. Valve is soft, medium, or hard rubber. Seat, Bolt and spring are brass. Furnished on special order only.

Fig. 544: Buffalo Wing Valve. All parts are of brass or for special service can be made of iron. Seats are tapered and driven in holes reamed to corresponding taper in the valve deck of the pump. May be very easily reground. Standard equipment for outside end packed and valve pot pumps except where otherwise specified.

IMPORTANT NOTES

REGULAR FITTED

Steel plunger rods, iron glands and iron water plungers.

IRON FITTED

The term "Iron Fitted" is understood to signify that no brass whatever is to be used in the water end of the pump, and that iron valves, seats, bolts and springs are to be used. This construction is necessary when pumps are used in handling some chemicals. Furnished on special order only.

COMPANION FLANGES

Companion Flanges to fit will be furnished on all flanged openings, 6 inch and smaller, tapped ready for connecting pipe.

PACKING FOR SHIPMENT

Pumps are skidded, exposed machined parts slushed and valve motions crated. Small fittings and wrenches are boxed and nailed to skids.

For Export: Pumps are blocked under steam and water ends at bottom of cylinders, thereby raising the feet off the bottom of the box, i. e., "floating." Wedges are placed at ends of box to prevent shifting.

CUSHION VALVES

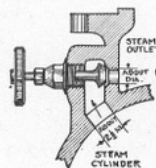


Fig. 2

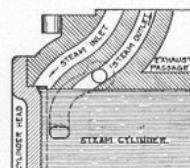


Fig. 3

Cushion Valves are furnished on steam cylinders of all duplex steam pumps 12" stroke and larger. On Compound

Steam Ends, the cushion valves are placed on the Low Pressure Cylinders only. As will be noted from above this valve is located so as to positively retain a certain amount of cushion steam. The amount of cushioning effect can be regulated to some extent by valve handles on which appear arrows showing which way to turn valve to open and lengthen pump stroke or to cushion.

PLUNGER AND GLAND PACKING

Outside packed pumps are shipped without any packing in either plunger or piston rod stuffing boxes. Prices do not include packing.

TESTING

All Buffalo Pumps are given thorough test and carefully adjusted before shipment.

CATALOG RATINGS

Catalog ratings show maximum speed at which pumps should run. For constant service lower plunger speeds should be used in order to reduce wear and tear on the pump.

SCANNED BY: AEM OF LOCKPORT NY USA

POSTED ON: SEPTEMBER 26, 2016

EDITED BY: BRIAN D. SZAFRANSKI

ELMA, NEW YORK USA

COURTESY OF: WESTERN NY GAS & STEAM ENGINE ASSOCIATION

ALEXANDER NEW YORK USA

WWW.ALEXANDERSTEAMSHOW.COM

NOTE: ORIGINAL DOCUMENT HAD WATER DAMAGE